

Roche Diagnostics GmbH Patent Department Penzberg				
ASK	30. Mai 2005			WN
BK				WJ
BUR	HH	HIL	MI	SR

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 22398 WO-BUR	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2005/001243	International filing date (day/month/year) 08/02/2005	(Earliest) Priority Date (day/month/year) 10/02/2004
Applicant ROCHE DIAGNOSTICS GMBH		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☒ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

Patent Department (TR-E)		
Case <u>22398</u>	Int.-Nr.	
Literatur erfasst:	Zeichen:	Datum:
Lit. sheet <input checked="" type="checkbox"/> Endnote <input type="checkbox"/>	<u>SMT</u>	<u>30.05.05</u>

→ PE

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. _____

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☒ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2005/001243

Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:
 - a. type of material
 - ☒ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material
 - ☒ in written format
 - ☒ in computer readable form
 - c. time of filing/furnishing
 - ☒ contained in the international application as filed
 - ☒ filed together with the international application in computer readable form
 - ☐ furnished subsequently to this Authority for the purpose of search
2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12Q1/70

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHEDMinimum documentation searched (classification system followed by classification symbols)
IPC 7 C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, Sequence Search, WPI Data, PAJ, EMBASE, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99/28439 A (ASSIST PUBL HOPITAUX DE PARIS ; AUGUSTE VERONIQUE (FR); GARBARG CHENON) 10 June 1999 (1999-06-10) cited in the application page 17 - page 18; example 4; sequences 11-15,58,106,107,121	1-5,9, 11-23
Y		1-23
Y	SCHMIDT I ET AL: "Parvovirus B19 DNA in plasma pools and plasma derivatives." VOX SANGUINIS. NOV 2001, vol. 81, no. 4, November 2001 (2001-11), pages 228-235, XP002288712 ISSN: 0042-9007 the whole document	1-23

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

20 May 2005

Date of mailing of the international search report

31/05/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Schmitt, A

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	HARDER T C ET AL: "New LightCycler PCR for rapid and sensitive quantification of parvovirus B19 DNA guides therapeutic decision-making in relapsing infections" JOURNAL OF CLINICAL MICROBIOLOGY 2001 UNITED STATES, vol. 39, no. 12, 2001, pages 4413-4419, XP002288713 ISSN: 0095-1137 the whole document	6,7
A	AUBIN J T ET AL: "Large-scale screening for human parvovirus B19 DNA by PCR: Application to the quality control of plasma for fractionation" VOX SANGUINIS, vol. 78, no. 1, February 2000 (2000-02), pages 7-12, XP002288714 ISSN: 0042-9007 the whole document	1-23
A	MUELLER J ET AL: "Development and validation of a real-time PCR assay for routine testing of blood donations for parvovirus B19 DNA." INFUSION THERAPY AND TRANSFUSION MEDICINE, vol. 29, no. 5, September 2002 (2002-09), pages 254-258, XP008032754 ISSN: 1424-5485 the whole document	1-23
A	GRUBER FRANZ ET AL: "Quantitation of viral DNA by real-time PCR applying duplex amplification, internal standardization, and two-color fluorescence detection" APPLIED AND ENVIRONMENTAL MICROBIOLOGY, vol. 67, no. 6, June 2001 (2001-06), pages 2837-2839, XP002288716 ISSN: 0099-2240 the whole document	1-23

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9928439	A	10-06-1999	FR 2771751 A1	04-06-1999
			AU 757453 B2	20-02-2003
			AU 1440399 A	16-06-1999
			CA 2311297 A1	10-06-1999
			EP 1037916 A2	27-09-2000
			WO 9928439 A2	10-06-1999
			JP 2001525163 T	11-12-2001
<hr/>				

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2005/001243

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12Q1/70

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, Sequence Search, WPI Data, PAJ, EMBASE, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99/28439 A (ASSIST PUBL HOPITAUX DE PARIS ; AUGUSTE VERONIQUE (FR); GARBARG CHENON) 10 June 1999 (1999-06-10) cited in the application page 17 - page 18; example 4; sequences 11-15, 58, 106, 107, 121	1-5, 9, 11-23
Y		1-23
Y	SCHMIDT I ET AL: "Parvovirus B19 DNA in plasma pools and plasma derivatives." VOX SANGUINIS. NOV 2001, vol. 81, no. 4, November 2001 (2001-11), pages 228-235, XP002288712 ISSN: 0042-9007 the whole document	1-23

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

20 May 2005

Date of mailing of the international search report

31/05/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Schmitt, A

BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2005/001243

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	HARDER T C ET AL: "New LightCycler PCR for rapid and sensitive quantification of parvovirus B19 DNA guides therapeutic decision-making in relapsing infections" JOURNAL OF CLINICAL MICROBIOLOGY 2001 UNITED STATES, vol. 39, no. 12, 2001, pages 4413-4419, XP002288713 ISSN: 0095-1137 the whole document	6,7
A	AUBIN J T ET AL: "Large-scale screening for human parvovirus B19 DNA by PCR: Application to the quality control of plasma for fractionation" VOX SANGUINIS, vol. 78, no. 1, February 2000 (2000-02), pages 7-12, XP002288714 ISSN: 0042-9007 the whole document	1-23
A	MUELLER J ET AL: "Development and validation of a real-time PCR assay for routine testing of blood donations for parvovirus B19 DNA." INFUSION THERAPY AND TRANSFUSION MEDICINE, vol. 29, no. 5, September 2002 (2002-09), pages 254-258, XP008032754 ISSN: 1424-5485 the whole document	1-23
A	GRUBER FRANZ ET AL: "Quantitation of viral DNA by real-time PCR applying duplex amplification, internal standardization, and two-color fluorescence detection" APPLIED AND ENVIRONMENTAL MICROBIOLOGY, vol. 67, no. 6, June 2001 (2001-06), pages 2837-2839, XP002288716 ISSN: 0099-2240 the whole document	1-23

Form PCT/ISA/210 (continuation of second sheet) (January 2004)

BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2005/001243

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9928439	A	10-06-1999	FR 2771751 A1	04-06-1999
			AU 757453 B2	20-02-2003
			AU 1440399 A	16-06-1999
			CA 2311297 A1	10-06-1999
			EP 1037916 A2	27-09-2000
			WO 9928439 A2	10-06-1999
			JP 2001525163 T	11-12-2001